

Abstract

An angle sensor enables the angle of orientation of a body to be determined. A force sensor measures the reaction force of the tip of the body in contact with the medium in almost continuous manner. The orientation of the reaction force with respect to the medium plane is determined from measurement data from said sensors. A vector tangential to the path is determined by projection of the reaction force in the medium plane. The path can be determined by mathematical integration of the tangential vector or by double mathematical integration of the tangential acceleration which can be determined for example by the scalar product of a tangential unitary vector obtained by normalization of the tangential vector and of data representative of the acceleration supplied by the accelerometer.